

**Department of Conservation
California Abandoned Mine Lands Forum
1027 10th Street
Sacramento, CA**

**May 15, 2003
Meeting Notes**

Facilitator and Meeting Summary: Carol Atkins, Harris & Company

Attendees:

Roger Ashley, USGS – Menlo Park	Greg Baker, NOAA
Syd Brown, Dept. of Parks and Recreation	Rob Busby, CVRWQCB
Janine Clayton, US Forest Service, Vallejo	John Clinkenbeard, DOC –Geologic Survey
Kurt Condie, MWH	Natalie Cosentino-Manning, NOAA
Doug Craig, Department of Conservation	Victor Early, Tetra Tech
Randy Gould, USFS - Vallejo	Stephen Grunin, RTI
Cookie Hirn, SWRCB	Rick Humphreys, SWRCB
John Lane, Teichert Aggregates	Shelby Lathrap, Shaw Environmental
G. Fred Lee, G. Fred Lee & Associates	Sandra Lunceford, Camp, Dresser, McKee
Eugene Mullenmeister, Shaw Environmental	Donna Podger, CA Bay-Delta Authority
Alberto Pujol, GEI Consultants	Sarah Reeves, Department of Conservation
Greg Reller, Tetra Tech	Tom Suchanek, USFWS
Dan Wanket, GEI Consultants	Rick Weaver, USFS – Tahoe Forest
Becky Wood, Teichert Aggregates	

Agenda:

- I. Welcome
- II. Meeting Format, Introductions, and Agenda Review
- III. Presentation: Lava Cap Mining Area and Arsenic
- IV. Discussion: Funding Sources
- V. Next Meeting

Meeting

I. Welcome

Doug Craig, manager of the Abandoned Mine Lands Unit (AMLU) for the Office of Mine Reclamation of the Department of Conservation, welcomed attendees. He reminded participants that state programs investigating and working on abandoned mines are housed in many different agencies and that the goal for this Forum is to create greater dialog on the issues that these respective agencies are working on, as well as incorporating dialog with local and federal agencies, and industry. Doug also recognized the California Bay-Delta Authority for providing funding for the Forum.

Doug reminded attendees that this Forum is a new group and not the AML Task Force that had concluded a couple of years earlier. Doug envisions this group being an ongoing effort and that can provide collaboration on remediation projects including funding opportunities. He noted that it is intended that the AML Forum be statewide in both discussion topics and participation. To that end, he is currently working on creating a website link to post information on the AML Forum. He further indicated that he would like to see the group set its own course and that the DOC staff would facilitate that dialog, but look to the larger entity for input on presentation and discussion topics for future meetings.

In addition, Doug noted that a concerted effort would be made not overlap with other existing dialog efforts, and recognized those efforts ongoing in the Sacramento area – the Delta Tributaries Mercury Council, the Sierra-Trinity Abandoned Mine Lands Agency Group and the Sacramento Regional County Sanitation District’s Offsets Workgroup. He also encouraged participants to forward ideas for future meeting topics.

II. Meeting Format and Agenda Review

Meeting Format: Carol Atkins reminded folks that at the last meeting, participants favored having an agenda with both a discussion topic and presentation. She asked folks to continue to give her feedback on this format.

Introductions: Meeting participants introduced themselves.

Agenda Review: Carol reviewed the agenda with the group; no changes were made.

III. Presentation: Review of the Lava Cap NPL Superfund Site

Dr. G. Fred Lee presented an overview of the Lava Cap Superfund Site including background on characteristics at the Lava Cap Mine Site, listing of the site on the US EPA NPL list, the US EPA approach to site investigation and remediation, and major issues that he feels need to be further defined. A copy of the presentation can be downloaded from: www.gfredlee.com/phazchem2.htm#lava

Dr. Lee explained that the South Yuba River Citizens League (SYRCL) is the public representative for a US EPA Technical Assistance Grant; Dr. Lee serves as a technical advisor to the grant.

Background: The site is the location of former gold and silver mining operations. Historically, the gold and silver mine shaft operation began in 1861 and operated on and off until 1943. Ore minerals present include pyrite, arsenopyrite, and galena. In January 1997, the upper half of Log Dam collapsed and released over 10,000 cubic yards of tailings to Little Clipper Creek and Lost Lake. In October of that year, the US EPA initiated a removal action to prevent further release of the tailings, and in 1999, the US EPA added the Lava Cap Mine area to the National Priority List (NPL) superfund sites.

Public Health and Environmental Problems: Monitoring of the mine area and downstream of where the tailings have been naturally carried and where they traveled following failure of the dam has shown elevated levels of arsenic in the surface soil, water, and sediment. A CERCLA remedial investigation and feasibility study risk assessment has been conducted. Additionally, groundwater monitoring of wells in the area has shown high levels of arsenic.

Fred noted that values of arsenic in some soils had levels of 34,000 mg/kg and pose a threat to human health, aquatic life, and wildlife. In addition, he noted that there are seeps from the mine shafts that discharge high concentrations of arsenic and other contaminants, and the groundwater in the area is in a fractured rock aquifer which makes it difficult to trace the movement of the mine-tailings derived arsenic that has entered the ground waters and migrated to down gradient residential wells.

Remediation Goals: At this time, the cleanup objectives for the site have not been defined. These are typically referred to as Applicable, Relevant and Appropriate Requirements (ARARs) and are based on regulatory requirements to protect human health and the environment.

Remedial Alternatives: The remedial alternatives being considered:

- (1) No action
- (2) Institutional controls, which would limit access to the contaminated areas
- (3) Containment, such as capping the existing arsenic-laden tailings, excavation of the tailings and tailings areas, and treatment to immobilize arsenic

Other Issues at the Site: The removal action will focus on cleanup activities associated with the failure of the log dam. As the site is naturally elevated in arsenic, the issue has been raised as to what arsenic is present due to the dam collapse, and which is due to natural conditions. In addition, the issues of elevated levels of other contaminants have been raised.

Questions and Discussion: Questions and discussion that followed the presentation included:

Q: Where is the process now and what is the prognosis for a reasonable solution?

A: Currently, they are defining the remediation approach. Work is finishing up on the remedial investigation and the feasibility study. The prognosis is good for a reasonable solution.

Q: Is there likelihood that the mines in this district could be reactivated?

A: It is not likely. Economically, it would not make sense.

Q: What is driving the work at this site?

A: Surface water and tailings exposure to arsenic is driving the work, though there are other issues at the site such as high groundwater concentrations of arsenic, which will not be addressed by the remedial action.

Q: Do local residents participate in SRYCL meetings?

A: Some do.

Q: Is the work looking at fish and arsenic affects on fish?

A: Part of the remedial investigation is. This work has not shown a problem with respect to bioaccumulation of constituents of concern.

IV. Funding Source Discussion

Brief presentations were given by staff with US Forest Service (USFS), Central Valley Regional Water Quality Control Board (CVRWQCB), and California Bay Delta Authority on funding opportunities or how their specific agency obtains funding for work on Abandoned Mines and/or abandoned mine remediation projects.

USFS Agency Budget: Janine Clayton indicated that the Forest Service has two pools of funding (competitive and noncompetitive) within the Environmental Compliance and Protection Program for environmental or physical hazards remediation projects at abandoned mines on their lands. Generally, between the two programs there is about \$25 million per year for funding of watershed projects and cleanup activities at hazardous materials sites, which includes abandoned mine sites. Funding for CERCLA projects fall under the competitive funds category and the majority of the USFS mine remediation projects have been funded through this source. Other funding sources include responding to grant solicitations.

For the USFS competitive process, projects are scored on the following factors:

- Environment
- Human Health and safety
- Promoting partnerships
- Legal issues
- Watershed values

Overall, there has been a decrease in funding for these projects in the Environmental Compliance and Protection Program. For the Year 2005 budget, four million dollars are available nationally for safety-related remediation efforts. Funding for non-cleanup related/remediation work (such as site characterization and project design) need to come from other, generally non-USFS, sources. To make projects happen, the USFS has been emphasizing greater partnerships and cost sharing. With this approach, various project tasks are usually divided up amongst project partners.

The USFS noncompetitive funds are for projects already underway and usually go to support operation and maintenance of reclaimed sites. This source of funding

comes from the pool for watershed and range management nationally. From year to year, this is taking a good proportion of the resources. In the past, clean up and abatement orders have increased the priority of a project in this category. Priority is also given to urban interface projects and projects being directed by groups with a proven record.

Grant Funding: Many remediation projects have used grant funding to support abandoned mine remediation work. Carol indicated that she had spoken with State Board staff regarding the status of the Proposition 40 funds which were removed from the RFCP that was distributed in March with concepts due in May. In their conversations, State Board staff indicated that these funds would be made available later this fall.

CALFED Proposition 13: Donna Podger with the California Bay-Delta Authority reported that Proposition 13 has specific funds dedicated for abandoned mine remediation projects that affect water quality in the Bay-Delta. She expects to release a proposal solicitation packet (PSP) for approximately 5 to 10 million dollars later this year. Donna indicated that it is likely that the funds can be used on public and private lands. CALFED agencies' staffs have been meeting to prepare a list of recommended criteria for managers to consider while developing the PSP. Projects must be in the CALFED solution area.

Cleanup and Abatement Funds: Rob Busby reported on the use of cleanup and abatement funds for remediation of abandoned mines. He indicated that this is not an open source of money, and that projects that typically received funding from this source are usually tied to enforcement order or legal settlement. He further explained that in situations where fines for abandoned mine cases have been paid into the account, those monies stay linked with the sites. He indicated that money from this source can be used to leverage other funding and can increase the priority in other processes looking to set priorities for cleanup. Funds can be used for abandoned mine remediation in emergency situations; in some instances, counties have made requests to use this funds to cleanup abandoned mines.

USGS: Roger Ashley reported that USGS has funds for use on abandoned mine remediation projects, but that those resources are associated with research activities. Currently, the Survey is looking at a reduction in funding. Work on abandoned mine lands is typically conducted in collaboration with other partners.

Department of Conservation: Doug Craig reported that the Department had approximately \$125,000 for remediation of safety hazards at abandoned mine sites this fiscal year. Contracts were developed to remediate 23 physical hazards at mine sites; 20 of these have been completed. Projects have included installation of bat gates, foam closures, backfilling, regrading, demolition and removal of mining structures, fencing, and signage. The Department is expecting to have a similar level of funding for this activity next year.

Legislation: (SB 649 – Senator Kuehl): It was noted that legislation provides another avenue for funding for projects to remediate abandoned mines. SB 649 would add surcharges to the mining of gold and silver. Revenue from the surcharges would create an abandoned mine reclamation and minerals subaccount, which could provide funding to the DOC AMLU. The current bill language is at: <http://www.leginfo.ca.gov/>

Other Mechanisms: Meeting participants reviewed the Spenceville Mine cleanup action. In 1990, the Department of Fish and Game and the Central Valley Regional Water Quality Control Board entered into a cooperative agreement for reclamation of the site. The agencies utilized funding within their budgets to support this reclamation effort. It was suggested that this type of an effort should be explored further.

V. Next Meeting

The next meeting has been scheduled for August 13, 2003. It will be held from 9 to noon at the sixth floor conference room at 1027 10th Street.

The following topics were suggested:

- Clarify function of group – advisory vs. task oriented vs. legislative
- Presentation on North Yuba Report from Department of Conservation AMLU staff
- Presentation on different technologies being used at mine cleanup sites (inquire with USEPA staff – Greg Reller will provide contact)

Carol will follow-up on suggestions and develop an agenda.